

REMARKS

Claims 1-24 are pending and under consideration.

This response is believed to place the application in condition for allowance, and entry therefore is respectfully requested. In the alternative, entry of this response is requested as placing the application in better condition for appeal by, at least, reducing the number of issues outstanding.

Entry of Amendment under 37 C.F.R. § 1.116

The Applicant requests entry of this Rule 116 Response because the response does not alter the scope of the claims and places the application at least into a better form for purposes of appeal. No new features or new issues are being raised.

The Manual of Patent Examining Procedures (M.P.E.P.) sets forth in Section 714.12 that “any amendment that would place the case either in condition for allowance or in better form for appeal may be entered.” Moreover, Section 714.13 sets forth that “the Proposed Amendment should be given sufficient consideration to determine whether the claims are in condition for allowance and/or whether the issues on appeal are simplified.” The M.P.E.P. further articulates that the reason for any non-entry should be explained expressly in the Advisory Action.

I. Rejection under 35 U.S.C. § 103

In the Office Action, at pages 2-10, claims 1-17 and 20 were rejected under 35 USC § 103(a) as being unpatentable over Huang et al. (U.S. Patent No. 6,483,846) in view of Nakano (U.S. Patent No. 6,754,226).

For example, claim 1 recites, in part:

wherein the transmission sequence is composed of one or more partial sequences, the composition of which depends on the cycle number determined for the particular transmission cycle,

wherein the cycle number determines which of the partial sequences are transmitted in the particular transmission cycle, and

wherein the pre-planning comprises defining a duration of each of the plurality of transmission cycles.

The Examiner acknowledges that Huang et al. does not teach that the composition of each transmission sequence depends on the cycle number determined for the particular transmission cycle, and attempts to make up for this deficiency with Nakano. However, the Applicants respectfully disagree with the Examiner because Nakano also does not teach that the composition of each transmission sequence depends on the cycle number determined for the

particular transmission cycle, as recited in claim 1. The Examiner points to col. 4, lines 60-67 and col. 5, lines 1-6 of Nakano as disclosing this feature of claim 1 and states that “number of channels determined partial sequences which is predetermined as described in Col. 5, lines 31-39.” However, this is incorrect because the indicated passages of Nakano do not disclose that the composition of each transmission sequence depends on the cycle number. The channels disclosed in Nakano do not correspond to the transmission cycles as recited in claim 1, for example. The channels in Nakano are merely channels for transmitting isochronous packets within each communication cycle and the channels may be provided with numbers (1, 2, 3, . . . , n) for distinguishing each of the packets. However, nowhere in Nakano is it disclosed that a number of the communication cycle determines which composition of channels are used or which composition of packets are transmitted during that particular cycle. In fact, Nakano appears to indicate that every channel is available during every communication cycle and that certain channels may be unused if there aren’t enough isochronous packets needing transmission during a particular cycle. Figure 4 of Nakano illustrates only a single full cycle #m. However, there is no indication in Nakano that the cycle number #m dictates or determines which composition of one or more of the isochronous packets make up the transmission sequence for that particular cycle number #m. Thus, Nakano also does not teach that the composition of each transmission sequence depends on the cycle number determined for the particular transmission cycle, as recited in claim 1.

The Examiner acknowledges that Huang et al. does not teach that the cycle number determines which of the partial sequences are transmitted in the particular transmission cycle, and attempts to make up for this deficiency with Nakano. However, the Applicants respectfully disagree with the Examiner because Nakano also does not teach that the cycle number determines which of the partial sequences are transmitted in the particular transmission cycle, as recited in claim 1. The Examiner points to col. 4, line 60 through col. 5, line 6 of Nakano as disclosing this feature of claim 1 and states that “depending on whether Iso packet is present or not the transmission sequence is determined.” However, this is incorrect because the indicated passages of Nakano do not disclose that the cycle number determines which of the partial sequences are transmitted in the particular transmission cycle. The Examiner makes reference to determining the transmission sequence. However, this feature of claim 1 is not concerned with a sequence or order of the partial sequences, but instead is concerned with which partial sequences are actually transmitted in the particular cycle, regardless of an order of the partial sequences. As discussed above, the channels disclosed in Nakano do not correspond to the transmission cycles as recited in claim 1, for example. The channels in Nakano are merely

channels for transmitting isochronous packets within each communication cycle and the channels may be provided with numbers (1, 2, 3, . . . , n) for distinguishing each of the packets. However, nowhere in Nakano is it disclosed that a number of the communication cycle determines which of the partial sequences are transmitted in the particular transmission cycle. In fact, Nakano appears to indicate that every channel is available during every communication cycle and that certain channels may be unused if there aren't enough isochronous packets needing transmission during a particular cycle. Figure 4 of Nakano illustrates only a single full cycle #m. However, there is no indication in Nakano that the cycle number #m dictates or determines which isochronous packets are transmitted during that particular cycle number #m. Thus, Nakano also does not teach that the cycle number determines which of the partial sequences are transmitted in the particular transmission cycle, as recited in claim 1.

The Examiner acknowledges that Huang et al. does not teach that the pre-planning comprises defining a duration of each of the plurality of transmission cycles, and attempts to make up for this deficiency with Nakano. However, the Applicants respectfully disagree with the Examiner because Nakano also does not teach that the pre-planning comprises defining a duration of each of the plurality of transmission cycles, as recited in claim 1. The Examiner points to col. 4, line 50 through col. 5, lines 1-6 and Fig. 4 of Nakano as disclosing this feature of claim 1 and states that "duration of cycle is determined and isochronous packets are transmitted first in that duration." However, this is incorrect because the indicated passages of Nakano do not disclose that the pre-planning comprises defining a duration of each of the plurality of transmission cycles. The order of transmission is irrelevant with regard to this feature of claim 1, as this feature merely requires that the duration of each of the transmission cycles be predetermined. Nothing in the cited passages of Nakano disclose a duration of each cycle or predetermining a duration cycle. The Examiner is respectfully requested to point out a specific passage in Nakano that discusses the determination of a duration of the transmission cycles.

Since Huang et al. and Nakano, alone or in combination, do not discuss or suggest all of the features of claim 1, claim 1 patentably distinguishes over Huang et al. and Nakano. Accordingly, withdrawal of the § 103(a) rejection is respectfully requested.

Claims 2-5 and 20 depend either directly or indirectly from claim 1, and include all the features of claim 1, plus additional features that are not discussed or suggested by the references relied upon. Therefore, claims 2-5 and 20 patentably distinguish over the references relied upon for at least the reasons noted above. Accordingly, withdrawal of these § 103(a) rejections is respectfully requested.

For example, claim 6 recites, in part:

wherein the transmission sequence is composed of one or more partial sequences the composition of which depends on the cycle number of the particular transmission cycle,

wherein the cycle number determines which of the partial sequences are transmitted in the particular transmission cycle, and

wherein a pre-planning of the real-time communication comprises defining a duration of each of the plurality of transmission cycles.

For at least the reasons discussed above with respect to claim 1, Huang et al. and Nakano, alone or in combination, do not discuss or suggest all of the features of claim 6, so that claim 6 patentably distinguishes over Huang et al. and Nakano. Accordingly, withdrawal of the § 103(a) rejection is respectfully requested.

Claims 7-9 and 22 depend either directly or indirectly from claim 6, and include all the features of claim 6, plus additional features that are not discussed or suggested by the references relied upon. Therefore, claims 7-9 and 22 patentably distinguish over the references relied upon for at least the reasons noted above. Accordingly, withdrawal of these § 103(a) rejections is respectfully requested.

For example, claim 10 recites, in part:

wherein the transmission sequence is composed of one or more partial sequences the composition of which depends on the determined cycle number,

wherein the cycle number determines which of the partial sequences are transmitted in the particular transmission cycle, and

wherein a pre-planning of the real-time communication comprises defining a duration of each of the plurality of transmission cycles.

For at least the reasons discussed above with respect to claim 1, Huang et al. and Nakano, alone or in combination, do not discuss or suggest all of the features of claim 10, so that claim 10 patentably distinguishes over Huang et al. and Nakano. Accordingly, withdrawal of the § 103(a) rejection is respectfully requested.

Claims 11-13 and 23 depend either directly or indirectly from claim 10, and include all the features of claim 10, plus additional features that are not discussed or suggested by the references relied upon. Therefore, claims 11-13 and 23 patentably distinguish over the references relied upon for at least the reasons noted above. Accordingly, withdrawal of these § 103(a) rejections is respectfully requested.

For example, claim 14 recites, in part:

wherein the output data is transmitted from the first user to the second user during the subsequent transmission cycle which is divided into a real-time partial cycle and a non-real-time partial cycle in a manner that depends on the cycle number determined by said processing portion,

wherein the cycle number determines which of the partial sequences are transmitted in the subsequent transmission cycle,

wherein a real-time communication is pre-planned before the communication starts, and

wherein a pre-planning of the real-time communication comprises defining a duration of the transmission cycles.

For at least the reasons discussed above with respect to claim 1, Huang et al. and Nakano, alone or in combination, do not discuss or suggest all of the features of claim 14, so that claim 14 patentably distinguishes over Huang et al. and Nakano. Accordingly, withdrawal of the § 103(a) rejection is respectfully requested.

Claims 15-17 depend either directly or indirectly from claim 14, and include all the features of claim 14, plus additional features that are not discussed or suggested by the references relied upon. Therefore, claims 15-17 patentably distinguish over the references relied upon for at least the reasons noted above. Accordingly, withdrawal of these § 103(a) rejections is respectfully requested.

In the Office Action, at pages 10-11, claims 18-19 were rejected under 35 USC § 103(a) as being unpatentable over Huang et al. in view of Nakano and further in view of Steger et al. (U.S. Patent No. 6,505,247).

As discussed above, the combination of Huang et al. and Nakano does not discuss or suggest all of the features of claim 1, so that claim 1 patentably distinguishes over Huang et al. and Nakano. Steger et al. fails to make up for the deficiency in the combination of Huang et al. and Nakano with respect to claim 1, so that claim 1 patentably distinguishes over the combination of Huang et al. and Nakano and Steger et al. Accordingly, withdrawal of these § 103(a) rejections is respectfully requested.

In the Office Action, at pages 11-15, claims 21-24 were rejected under 35 USC § 103(a) as being unpatentable over Huang et al. in view of Nakano and further in view of Shioe et al. (U.S. Patent No. 5,390,132).

For example, claim 21 recites, in part:

wherein the transmission sequence is composed of one or more

partial sequences, the composition of which depends on the cycle number determined for the particular transmission cycle,

wherein the cycle number determines which of the partial sequences are transmitted in the particular transmission cycle.

For at least the reasons discussed above with respect to claim 1, Huang et al. and Nakano, alone or in combination, do not discuss or suggest all of the features of claim 21, so that claim 21 patentably distinguishes over Huang et al. and Nakano. Shioe et al. fails to make up for the deficiency in the combination of Huang et al. and Nakano with respect to claim 21, so that claim 21 patentably distinguishes over the combination of Huang et al. and Nakano and Shioe et al. Accordingly, withdrawal of these § 103(a) rejections is respectfully requested.

For example, claim 24 recites, in part:

wherein the output data is transmitted from the first user to the second user during the subsequent transmission cycle which is divided into a real-time partial cycle and a non-real-time partial cycle in a manner that depends on the cycle number determined by said processing portion,

wherein the cycle number determines which of the partial sequences are transmitted in the subsequent transmission cycle.

For at least the reasons discussed above with respect to claim 1, Huang et al. and Nakano, alone or in combination, do not discuss or suggest all of the features of claim 24, so that claim 24 patentably distinguishes over Huang et al. and Nakano. Shioe et al. fails to make up for the deficiency in the combination of Huang et al. and Nakano with respect to claim 24, so that claim 24 patentably distinguishes over the combination of Huang et al. and Nakano and Shioe et al. Accordingly, withdrawal of these § 103(a) rejections is respectfully requested.

CONCLUSION

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.


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If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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